- Line driver mode supports engine start at a battery voltage as low as 6 V (16 dB and mid-tap voltage 0.25 × V_P)
- Programmable clip detect: 2 %, 5 % or 10 %
- Programmable thermal pre-warning
- Pin STB can be programmed/multiplexed with second-clip detect
- Clip information of each channel can be directed separately to pin DIAG or pin STB
- Independent enabling of thermal-, clip- or load fault information (short across the load or to V_P or to ground) on pin DIAG
- Loss-of-ground and open V_P safe (minimum series resistance required)
- All amplifier outputs short-circuit proof to ground, supply voltage and across the load (channel independent)
- All pins short-circuit proof to ground
- Temperature controlled gain reduction to prevent audio holes at high junction temperatures
- Programmable low battery voltage detection to enable 7.5 V or 6 V minimum battery voltage operation
- Overvoltage protection (load-dump safe up to V_P = 50 V) with overvoltage pre-warning at 16 V
- Offset detection

3. Quick reference data

Table 1.Quick reference data

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
V _{P(oper)}	operating supply voltage	$R_L = 4 \Omega$	6	14.4	18	V
lq	quiescent current	no load	-	260	350	mA
		no load; $V_P = 7 V$	-	190	-	mA
P _o output power	$R_L = 4 \Omega$; $V_P = 14.4 V$; maximum power; $V_i = 2 V RMS$ square wave	37	40	-	W	
		$R_L = 4 \Omega$; $V_P = 15.2 V$; maximum power; $V_i = 2 V RMS$ square wave	41	45	-	W
		R_L = 4 $\Omega;~V_P$ = 14.4 V; THD = 0.5 %	18	20	-	W
		R_L = 4 Ω ; V_P = 14.4 V; THD = 10 %	23	25	-	W
		R_L = 2 Ω ; V_P = 14.4 V; THD = 10 %	40	44	-	W
	$R_L = 2 \Omega$; $V_P = 14.4 V$; maximum power; $V_i = 2 V RMS$ square wave	58	64	-	W	
THD	total harmonic	P_{o} = 1 W to 12 W; f_{i} = 1 kHz; R_{L} = 4 $\Omega;$ BTL mode	-	0.01	0.1	%
	distortion	$P_o = 4 \text{ W}; f_i = 1 \text{ kHz}; R_L = 4 \Omega;$ best efficiency mode	-	0.03	-	%
V _{n(o)}	output noise voltage	filter 20 Hz to 22 kHz; $R_S = 1 \ k\Omega$				
		amplifier mode	-	43	65	μV
		line driver mode	-	25	33	μV

 I^2C -bus controlled 4 × 45 W best efficiency amplifier

4. Ordering information

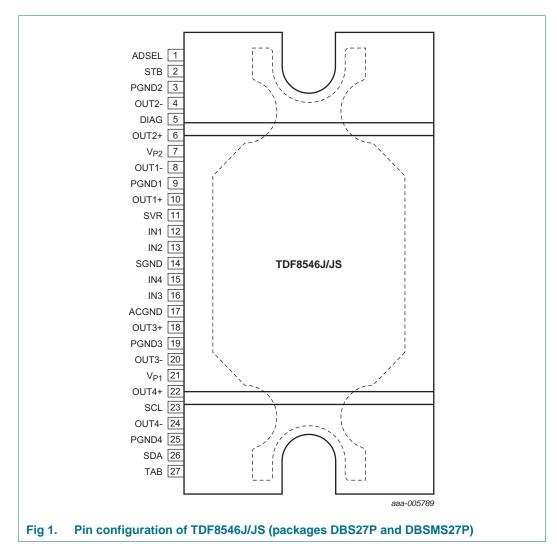
Type number	Package	Package						
	Name	Description	Version					
TDF8546J	DBS27P	plastic DIL-bent-SIL (special bent) power package; 27 leads (lead length 6.8 mm)	SOT827-1					
TDF8546TH	HSOP36	plastic, heatsink small outline package; 36 leads; low stand-off height	SOT851-1					
TDF8546JS	DBSMS27P	plastic dual bent surface mounted SIL power package; 27 leads	SOT1154-					

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 I^2C -bus controlled 4 × 45 W best efficiency amplifier

5. Pinning information

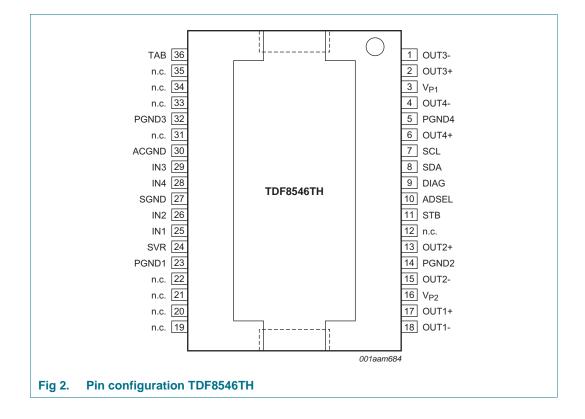
5.1 Pinning



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TDF8546

 I^2C -bus controlled 4 × 45 W best efficiency amplifier



5.2 Pin description

Table 3.	Pin description		
Symbol	Pin		Description
	TDF8546J/JS	TDF8546TH	
ADSEL	1	10	I ² C-bus address select
STB	2	11	Standby (I ² C-bus mode) or mode pin (legacy mode) programmable second clip indicator
PGND2	3	14	channel 2 power ground
OUT2-	4	15	channel 2 negative output (right rear)
DIAG	5	9	diagnostic and clip detection output
OUT2+	6	13	channel 2 positive output (right rear)
V_{P2}	7	16	power supply voltage 2
OUT1-	8	18	channel 1 negative output (right front)
PGND1	9	23	channel 1 power ground
OUT1+	10	17	channel 1 positive output (right front)
SVR	11	24	half supply voltage filter capacitor
IN1	12	25	channel 1 input
IN2	13	26	channel 2 input
SGND	14	27	signal ground
IN4	15	28	channel 4 input
IN3	16	29	channel 3 input
ACGND	17	30	AC ground
OUT3+	18	2	channel 3 positive output (left front)
PGND3	19	32	channel 3 power ground
OUT3-	20	1	channel 3 negative output (left front)
V _{P1}	21	3	power supply voltage 1
OUT4+	22	6	channel 4 positive output (left rear)
SCL	23	7	I ² C-bus clock input
OUT4-	24	4	channel 4 negative output (left rear)
PGND4	25	5	channel 4 power ground
SDA	26	8	I ² C-bus data input and output
TAB	27	36	heatsink connection; must be connected to ground
n.c.	-	12, 19, 20, 21, 22, 31, 33, 34, 35	not connected

6. Thermal characteristics

Table 4.	Thermal characteristics			
Symbol	Parameter Conditions Typ Unit			
DBS27/DI	BSMS27P			
R _{th(j-c)}	thermal resistance from junction to case		1	K/W
R _{th(j-a)}	thermal resistance from junction to ambient		40	K/W
HSOP36				
R _{th(j-c)}	thermal resistance from junction to case		1	K/W
R _{th(j-a)}	thermal resistance from junction to ambient		35	K/W

7. Characteristics

Table 5. Characteristics

 $T_{amb} = 25 \text{ °C}; V_P = 14.4 \text{ V};$ unless otherwise specified. Tested at $T_{amb} = 25 \text{ °C};$ guaranteed for $T_j = -40 \text{ °C}$ to +150 °C; functionality is guaranteed for $V_P < 10 \text{ V}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
Supply voltag	je behavior					
V _{P(oper)}	operating supply voltage	$R_L = 4 \Omega$	6	14.4	18	V
		$R_L = 2 \Omega$	6	14.4	16	V
l _q	quiescent current	no load	-	260	350	mA
	no load; $V_P = 7 V$	-	190	-	mA	
I _{off}	off-state current	$V_{STB} = 0.4 V$	-	4	10	μΑ
Vo	output voltage	DC				
		amplifier on; high gain/low gain mode	6.6	7.1	7.6	V
		line driver mode; IB4[D2] = 0; IB3[D5:D6] = 1	3.0	3.4	3.8	V
V _{P(low)(mute)}	low supply voltage mute	rising supply voltage				
		IB4[D0] = 1	7.0	7.7	8.1	V
		IB4[D0] = 0	5.4	5.7	6.2	V
		falling supply voltage				
		IB4[D0] = 1	6.5	7.2	7.7	V
		IB4[D0] = 0	5.2	5.5	5.9	V
$\Delta V_{P(low)(mute)}$	low supply voltage mute	IB4[D0] = 1	0.1	0.5	0.8	V
	hysteresis	IB4[D0] = 0	0.1	0.3	0.7	V
V _{P(ovp)pwarn}	pre-warning overvoltage	rising supply voltage	15.2	16	16.9	V
	protection supply voltage	falling supply voltage	14.4	15.2	16.2	V
		hysteresis	-	0.8	-	V
V _{th(ovp)}	overvoltage protection threshold voltage	rising supply voltage	18	20	22	V
V _{POR}	power-on reset voltage	falling supply voltage	-	3.1	4.5	V
V _{O(offset)}	output offset voltage	amplifier on	-75	0	+75	mV
		amplifier mute	-25	0	+25	mV
		line driver mode	-45	0	+45	mV

Table 5. Characteristics ...continued

 $T_{amb} = 25 \text{ °C}$; $V_P = 14.4 \text{ V}$; unless otherwise specified. Tested at $T_{amb} = 25 \text{ °C}$; guaranteed for $T_j = -40 \text{ °C}$ to +150 °C; functionality is guaranteed for $V_P < 10 \text{ V}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Мах	Unit
Mode select	and second clip detection: pin S	STB				
V _{STB}	voltage on pin STB	off-by mode selected				
		l ² C-bus mode	-	-	0.8	V
		legacy mode (I ² C-bus mode off)	-	-	0.8	V
		mute selected				
		legacy mode (I ² C-bus mode off)	2.5	-	4.5	V
		operating mode selected				
		I ² C-bus mode	2.5	-	VP	V
		legacy mode (I ² C-bus mode off)	5.9	-	VP	V
		low voltage on pin STB when pulled LOW during clipping; clip detection on STB active	<u>[1]</u>			
		I _{STB} = 150 μA	5.6	5.9	6.5	V
		I _{STB} = 500 μA	6.1	-	7.4	V
I _{STB}	current on pin STB	0 V < V_{STB} < 8.5 V; clip detection not active	<u>[1]</u> -	5	30	μA
Start-up/shu	It-down/mute timing					
t _{wake}	wake-up time	time after wake-up via pin STB before first I ² C-bus transmission is recognized;	-	300	500	μS
LO(SVR)	output leakage current on pin SVR		-	-	5	μΑ
t _{d(mute_off)}	mute off delay time	time from amplifier start to 10 % of output signal; I_{LO} = 0 μA	[2]			
		$I^2C\text{-bus mode};$ with I_{LO} = 5 μA \rightarrow +15 ms; no DC-load (IB1[D1] = 0);	-	430	650	ms
		legacy mode; with I _{LO} = 5 μ A \rightarrow +20 ms; V _{STB} = 7 V; R _{ADSEL} = 0 Ω ;	-	430	650	ms
t _{amp_on}	amplifier on time	time from amplifier start to amplifier on; 90 % of output signal; I_{LO} = 0 μ A	<u>[2]</u>			
		I ² C-bus mode; with I _{LO} = 5 μ A \rightarrow +30 ms; no DC-load (IB1[D1] = 0);	-	550	800	ms
		legacy mode; with I_{LO} = 5 μ A \rightarrow +20 ms; V _{STB} = 7 V; R _{ADSEL} = 0 Ω ;	-	550	800	ms

Table 5. Characteristics ...continued

 $T_{amb} = 25 \text{ °C}$; $V_P = 14.4 \text{ V}$; unless otherwise specified. Tested at $T_{amb} = 25 \text{ °C}$; guaranteed for $T_j = -40 \text{ °C}$ to +150 °C; functionality is guaranteed for $V_P < 10 \text{ V}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
t _{off}	amplifier switch-off time	time to DC output voltage < 0.1 V; $I_{LO} = 0 \ \mu A$	[2]			
		$I^2C\text{-bus mode};$ with I_{LO} = 5 μA \rightarrow +0 ms;	250	500	750	ms
		via pin STB; (IB4[D6] = 0); with I_{LO} = 5 μ A \rightarrow +0 ms;	250	500	750	ms
t _{d(mute} on)	delay time from mute to on	from 10 % to 90 % of output signal; $V_i = 50 \text{ mV}$; l ² C-bus mode (IB2[D1, D2] = 1 to 0) or IB2(D0 = 1 to 0) or legacy mode (V _{STB} = 3 V to 7 V);	5	15	40	ms
td(soft_mute)	soft mute delay time	from 90 % to 10 % of output signal; $V_i = 50 \text{ mV}$; l ² C-bus mode (IB2[D1, D2] = 0 to 1) or legacy mode (V _{STB} = 7 V to 3 V);	5	15	40	ms
td(fast_mute)	fast mute delay time	from 90 % to 10 % of output signal; V _i = 50 mV; l ² C-bus mode (IB2[D0] = 0 to 1, or V _{STB} from > 5.9 V to < 0.8 V in 1 μ s;	-	0.4	1	ms
t(start-Vo(off))	engine start to output off time	$V_{\rm P}$ from 14.4 V to 5 V in 1.5 ms; $V_{\rm o}$ < 0.5 V;	-	0.1	1	ms
t _(start-SVRoff)	engine start to SVR off time	$V_{\rm P}$ from 14.4 V to 5 V in 1.5 ms; $V_{\rm SVR}$ < 0.7 V;	-	40	75	ms
I ² C-bus inter	face ^[3]					
V _{IL}	LOW-level input voltage	pins SCL and SDA	-	-	1.5	V
V _{IH}	HIGH-level input voltage	pins SCL and SDA	2.3		5.5	V
V _{OL}	LOW-level output voltage	pin SDA; $I_L = 5 \text{ mA}$	-	-	0.4	V
f _{SCL}	SCL clock frequency		-	400	-	kHz
V _{ADSEL}	voltage on pin ADSEL	l ² C-bus address A[6:0] = 1101 101				
		Rseries _{ADSEL} = 0 Ω	4	5	11	V
		Rseries _{ADSEL} = 100 k Ω	-	-	VP	V
I _{I(ADSEL)}	input current on pin ADSEL	$V_{STB} = 5 V; V_{ADSEL} = 5 V$	-	2	10	μΑ
R _{ADSEL}	resistance on pin ADSEL	l ² C-bus address A[6:0] = 1101 110	99	100	101	kΩ
		l ² C-bus address A[6:0] = 1101 111	29.7	30	30.3	kΩ
		l ² C-bus address A[6:0] = 1101 010	9.9	10	10.1	kΩ
		legacy mode	-	-	0.47	kΩ
V _{P(latch)}	latch supply voltage	does not react to address selection changes	-	-	6	V

Start-up diagnostics

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Table 5. Characteristics ...continued

 $T_{amb} = 25 \text{ °C}; V_P = 14.4 \text{ V}; unless otherwise specified. Tested at <math>T_{amb} = 25 \text{ °C}; \text{ guaranteed for } T_j = -40 \text{ °C to } +150 \text{ °C};$ functionality is guaranteed for $V_P < 10 \text{ V}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
t _{sudiag}	start-up diagnostic time	from start-up diagnostic command via l ² C-bus until completion of start-up diagnostic; $V_0 + < 0.1 V$; $V_0 - < 0.1 V$ (no load) IB1[D1] = 1;	50	130	250	ms
t _{d(sudiag-on)}	start-up diagnostic to on delay time	at 90 % of output signal; IB1[D0:D1] = 11;	-	680	-	ms
V _{offset}	offset voltage	start-up diagnostic offset voltage under no load condition	1.3	2	2.5	V
R _{Ldet(sudiag)}	start-up diagnostic load	shorted load				
	detection resistance	high gain; IB3[D6:D5] = 00	-	-	0.5	Ω
		low gain; IB3[D6:D5] = 11	-	-	1.5	Ω
		normal load				
		high gain (IB3[D6:D5] = 00)	1.5	-	20	Ω
		low gain (IB3[D6:D5] = 11)	3.2	-	20	Ω
		line driver load	80	-	200	Ω
		open load	400	-	-	Ω
Amplifier diag	nostics					
V _{OL(DIAG)}	LOW-level output voltage on pin DIAG	fault condition; $I_{DIAG} = 1 \text{ mA}$	-	-	0.3	V
V _{O(offset_det)}	output voltage at offset detection		±1.0	±1.3	±2.0	V
THD _{clip}	total harmonic distortion clip	V _P > 10 V				
	detection level	IB2[D7:D6] = 10	-	10	-	%
		IB2[D7:D6] = 01	-	5	-	%
		IB2[D7:D6] = 00	-	2	-	%
T _{j(AV)(pwarn)}	pre-warning average junction	IB3[D4] = 0 or legacy mode	150	160	170	°C
	temperature	IB3[D4] = 1	125	135	145	°C
T _{j(AV)(G(-0.5dB))}	average junction temperature for 0.5 dB gain reduction	V _i = 0.05 V; best efficiency mode turns off when activated	-	175	-	°C
$\Delta G_{(th_{fold})}$	gain reduction of thermal foldback	when all channels switch off	-	20	-	dB
l _o	output current	I ² C-bus mode; IB5[D7] = 0; AC load bit set; peak current				
		IB4[D1] = 1	500	-	-	mA
		IB4[D1] = 0	275	-	-	mA
		$I^{2}C$ -bus mode; IB5[D7] = 0; AC load bit not set; peak current				
		I^2 C-bus mode; IB5[D7] = 0; AC	-	-	250	mA
		l ² C-bus mode; IB5[D7] = 0; AC load bit not set; peak current	-	-	250 100	mA mA

Table 5. Characteristics ...continued

 $T_{amb} = 25 \text{ °C}$; $V_P = 14.4 \text{ V}$; unless otherwise specified. Tested at $T_{amb} = 25 \text{ °C}$; guaranteed for $T_j = -40 \text{ °C}$ to +150 °C; functionality is guaranteed for $V_P < 10 \text{ V}$ unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Мах	Unit
Amplifier						
Po	output power	$R_L = 4 \Omega; V_P = 14.4 V;$ THD = 0.5 %	18	20	-	W
		R_L = 4 Ω; V _P = 14.4 V; THD = 10 %	23	25	-	W
		$R_L = 2 \Omega; V_P = 14.4 V;$ THD = 0.5 %	29	32	-	W
		$R_L = 2 \Omega; V_P = 14.4 V;$ THD = 10 %	40	44	-	W
P _{o(max)}	maximum output power	$R_L = 4 \Omega$; $V_P = 14.4 V$; $V_i = 2 V RMS$ square wave	37	40	-	W
		$R_L = 4 \Omega$; $V_P = 15.2 V$; $V_i = 2 V RMS$ square wave	41	45	-	W
		$R_L = 2 \Omega$; $V_P = 14.4 V$; $V_i = 2 V RMS$ square wave	58	64	-	W
THD tota	total harmonic distortion	$\label{eq:point} \begin{array}{l} P_{o} = 1 \; W \; to \; 12 \; W; \; f_{i} = 1 \; kHz; \\ R_{L} = 4 \; \Omega; \; BTL \; mode \end{array}$	-	0.01	0.1	%
		P_{o} = 1 W; f_{i} = 1 kHz; R_{L} = 4 $\Omega;$ V_{P} = 7 V; BTL and best efficiency mode	-	0.01	0.1	%
		$P_o = 4 \text{ W}; f_i = 1 \text{ kHz}; R_L = 4 \Omega;$ best efficiency mode	-	0.03	0.1	%
		$P_o = 1$ W to 12 W; $f_i = 20$ kHz; $R_L = 4 \Omega$; best efficiency mode	-	0.3	0.4	%
		$V_o = 1 V (RMS)$ and $4 V (RMS)$, $f_i = 1 kHz$; line driver mode	-	0.02	0.05	%
		$P_o = 1$ W to 12 W; $f_i = 1$ kHz; $R_L = 4 \Omega$; low gain mode	-	0.01	0.1	%
α_{cs}	channel separation	best efficiency mode; R _S = 1 k Ω ; R _{ACGND} = 250 Ω	<u>[4]</u>			
		f _i = 1 kHz	65	80	-	dB
		f _i = 10 kHz	55	65	-	dB
SVRR	supply voltage ripple rejection	$ f_i = 1 \text{ kHz; } R_S = 1 \text{ k}\Omega; \\ R_{ACGND} = 250 \Omega; \text{ best efficiency} \\ mode; \text{ tested at } V_P = 10.5 \text{ V} $	<u>[4]</u> 55	70	-	dB
CMRR	common mode rejection ratio	amplifier mode; $V_{cm} = 0.3 V (p-p)$; f _i = 1 kHz to 3 kHz, $R_S = 1 k\Omega$; $R_{ACGND} = 250 \Omega$; best efficiency mode	<u>[4]</u>			
		common mode input to differential output (V _{O(dif)} / V _{I(cm)} + 26 dB)	55	65	-	dB
		common mode input to common mode output ($V_{O(cm)} / V_{I(cm)} + 26 \text{ dB}$)	50	58	-	dB

Table 5. Characteristics ... continued

 $T_{amb} = 25 \text{ °C}$; $V_P = 14.4 \text{ V}$; unless otherwise specified. Tested at $T_{amb} = 25 \text{ °C}$; guaranteed for $T_i = -40 \text{ °C}$ to +150 °C; functionality is guaranteed for $V_P < 10$ V unless otherwise specified.

Symbol	Parameter	Conditions	Min	Тур	Max	Unit
ΔV _o	output voltage variation	plop during switch-on and switch-off; best efficiency mode	<u>[5]</u>			
		from off to mute and mute to off	-	-	7.5	mV
		from mute to on and on to mute (soft mute)	-	-	7.5	mV
		from off to on and on to off (start-up diagnostic enabled)	-	-	7.5	mV
V _{n(o)}	output noise voltage	filter 20 Hz to 22 kHz (6 th order); R_{S} = 1 k Ω				
		mute mode	-	15	23	μV
		line driver mode	-	25	33	μV
		amplifier mode; best efficiency mode	-	43	65	μV
		amplifier mode; best efficiency mode; R_S = 50 Ω	-	40	60	μV
G _{v(amp)}	voltage gain amplifier mode	single-ended in to differential out; best efficiency mode	25.5	26	26.5	dB
G _{v(ld)}	voltage gain line driver mode	single-ended in to differential out; best efficiency mode	15.5	16	16.5	dB
Z _i	input impedance	$T_{amb} = -40 \ ^{\circ}C \ to \ +105 \ ^{\circ}C$	38	62	105	kΩ
		$T_{amb} = 0 \ ^{\circ}C$ to 105 $^{\circ}C$	55	62	105	kΩ
α_{mute}	mute attenuation	$V_{o(on)} / V_{o(mute)}$; $V_i = 50 \text{ mV}$	80	92	-	dB
V _{o(mute)} (RMS)	RMS mute output voltage	V _i = 1 V RMS; filter 20 Hz to 22 kHz	-	16	29	μV
B _p	power bandwidth	-1 dB	-	20 to 20000	-	Hz
C _{L(crit)}	critical load capacitance	no oscillation; ${\rm R_L}$ between 2 Ω and open load; ${\rm C_L}$ from all outputs to GND	22	-	-	nF
Best efficiend	cy mode control					
V _{o(swoff)be}	best efficiency switch-off output	best efficiency switch open				
	voltage	4 Ω load selected; IB5[D4] = 1	-	0.9	-	V
		2 Ω load selected; IB5[D4] = 0	-	1.7	-	V
R _{sw(be)}	best efficiency switch resistance		-	1.0	-	Ω

[1] V_{STB} depends on the current into pin STB: minimum = (1429 $\Omega \times I_{STB}$) + 5.4 V, maximum = (3143 $\Omega \times I_{STB}$) + 5.6 V.

- The times are specified without leakage current. For a leakage current of 5 µA on pin SVR, the delta time is specified. If the capacitor [2] value on pin SVR changes \pm 30 %, the specified time also changes \pm 30 %. The specified times include an ESR of 15 Ω for the capacitor on pin SVR.
- Standard I²C-bus specification: maximum LOW-level = 0.3V_{DD}, minimum HIGH-level = 0.7V_{DD}. To comply with 5 V and 3.3 V logic, [3] V_{DD} = 5 V defines the maximum LOW-level and V_{DD} = 3.3 V defines the minimum HIGH-level.
- [4] For optimum channel separation (α_{cs}), supply voltage ripple rejection (SVRR) and common mode rejection ratio (CMRR), a resistor $R_{\rm S}$ R_A

$$L_{CGND} = \frac{3}{4} \Omega$$
 must be in series with the ACGND capacitor.

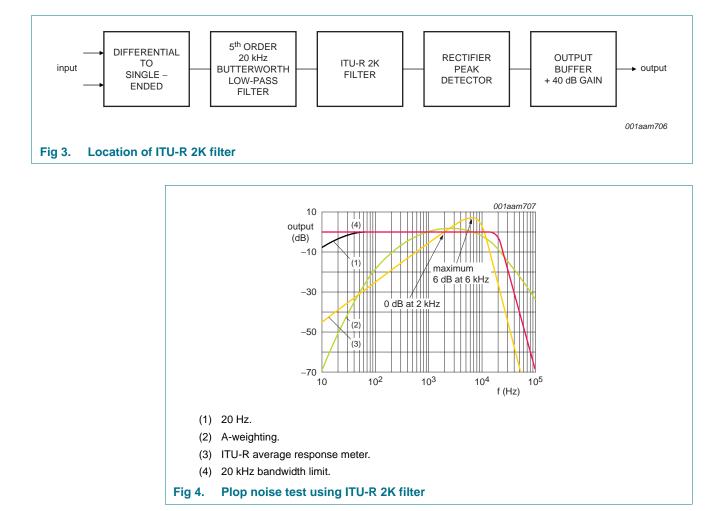
[5] The plop-noise during amplifier switch-on and switch-off is measured using an ITU-R 2 k filter; see Figure 4.

TDF8546 SDS

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TDF8546

I²C-bus controlled 4×45 W best efficiency amplifier



I²C-bus controlled 4×45 W best efficiency amplifier

8. Package outline

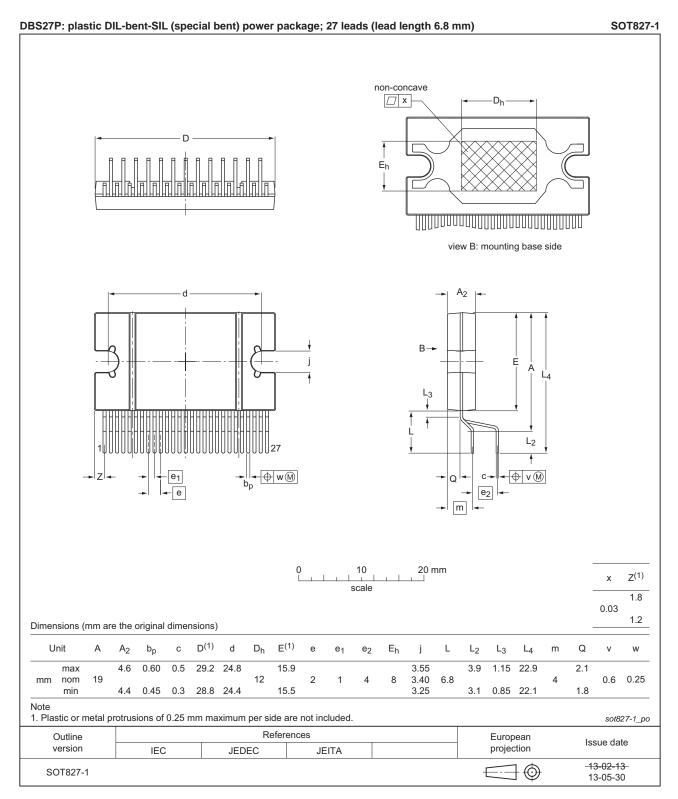


Fig 5. Package outline SOT827-1 (DBS27P)

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I^2C -bus controlled 4 × 45 W best efficiency amplifier

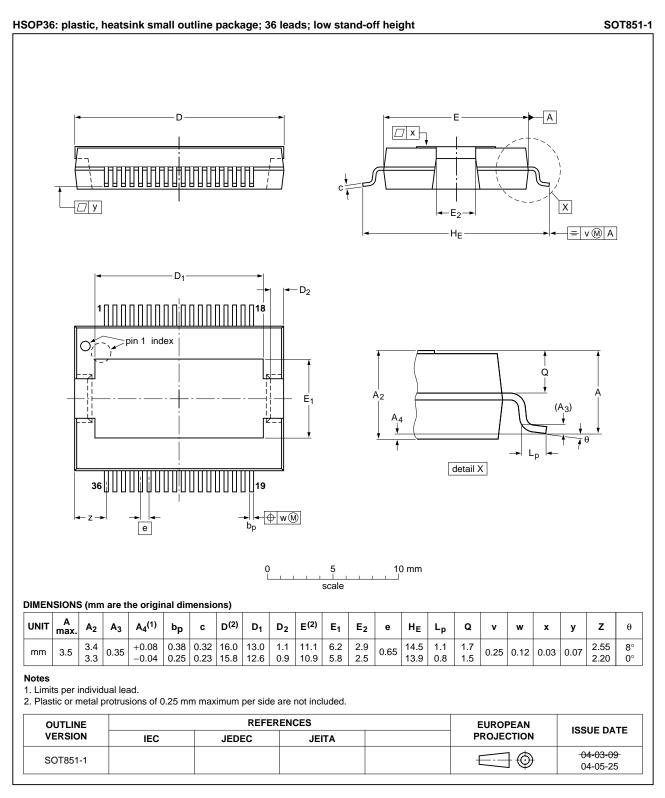


Fig 6. Package outline SOT851-1 (HSOP36)

TDF8546_SDS

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I²C-bus controlled 4×45 W best efficiency amplifier

TDF8546

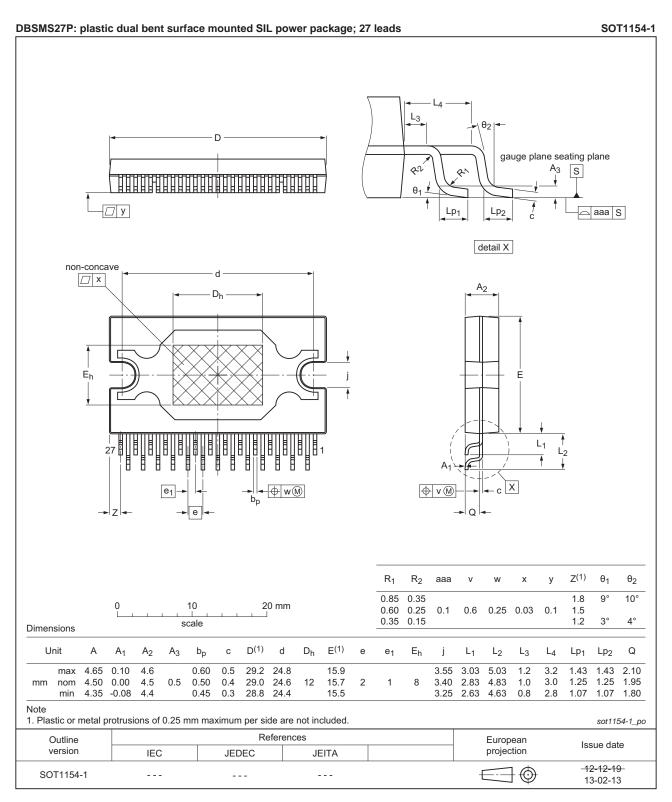


Fig 7. Package outline SOT1154-1 (DBSMS27P)

TDF8546_SDS Product short data sheet

9. Revision history

Table 6. Revisio	Revision history					
Document ID	Release date	Data sheet status	Change notice	Supersedes		
TDF8546 v.8	20130927	Product short data sheet	-	-		

10. Legal information

10.1 Data sheet status

Document status[1][2]	Product status ^[3]	Definition
Objective [short] data sheet	Development	This document contains data from the objective specification for product development.
Preliminary [short] data sheet	Qualification	This document contains data from the preliminary specification.
Product [short] data sheet	Production	This document contains the product specification.

[1] Please consult the most recently issued document before initiating or completing a design.

[2] The term 'short data sheet' is explained in section "Definitions".

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